NEW-ENGLAND FARMER.

PUBLISHED BY JOSEPH BRECK & CO., (AGRICULTURAL WAREHOUSE,) NO. 52 NORTH MARKET STREET.

VOL. XXIII.] BOSTON, WEDNESDAY EVENING, JUNE 4, 1845. [No. 49.

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HOME-MADE GUANO.

Contents of Vaults.—Of this last enumerated substance, so nearly allied to guano in its character, it is needless to speak as a fertilizer. Everbody knows and acknewledges it. Before these offensive materials are brought to the notice of mankind, they are blended with the earth from which they have been temporarily separated; are intimately mixed with the soil; they lose all their repellent odor; the original and ultimate elements are there evolved, and form new combinations, first with the soil, and afterwards with the luxuriant vegetation that springs up in their midst; and the waving grass, the nodding corn, and even the stately forest, that lifts its majestic forms far heavenward, owe their whole strength and substance to this loathed material, or its kindred elements; while to the dahlia and lily, it sends a lovelier hue; and the rose blushes deeper, and sends forth a still more delicious fragrance from the contact.

While economy and our interest lead us to investigate and provide a proper mode of appropriating this substance to our soils, a just appreciation of cleanliness, health, taste, and even decency, require a total modification of the present system in regard to its disposal. In the country, vaults are usually constructed so shallow as to be in the highest degree offensive to the double sense of sight and smell; in cities they are almost equally offensive. They are sunk deep, it is true, but not out of the reach of our olfactories.

Every village in the Union can well afford to pay $10,000, and every city $1,000,000, for the invention of such a vault as would effectually secure every particle of matter deposited in it; prevent the escape of any noxious effluvia, and finally allow of a ready and economical removal. (*a.*)

Vaults should be differently constituted to suit different situations. In all cases they should be perfectly tight; in some they may be made of mason work, in others, of strong, durable plank; and when they cannot be sunk below the surface, as is sometimes the case in cities, they may be made of some of the mixed metals, properly guarded against corrosion, such as neutralized zinc, coated sheet or boiler iron, &c., which might be easily removed with their entire contents. Turf, peat, tan-bark, saw-dust, charcoal, or sulphate of lime may be added to the contents of the vault, from time to time, to combine with and disinfect the volatile ingredients, prevent their escape, and hold them for future use. Quick lime is a wasteful application, as it expels the ammonia. It is only useful to purify and sweeten the air.

When easily accessible (as they ought always to be,) these contents, thus neutralized and rendered as inoffensive as ashes or turf, should be frequently removed and mixed with other compost, or, what is better, at once spread over and mixed with the soil. These materials possess all the constituents of Peruvian guano, and in a form nearly as concentrated; and if effectually husbanded and added to the soil, would increase the crops of the United States annually from $50,000,000 to $100,000,000, and save incalculably in the health and comfort of the inhabitants.

The use of the above manure would save immensely in the labor of exterminating weeds which are produced from composts made of barn manures, and the vegetable alluvial deposits of roads, drains and ditches, all of which are highly charged with obnoxious weeds and grasses, the prevention of whose growth and maturity constitutes so large a share of the farmer's labor in successfully rearing his crops. Travellers allege that the considerate and careful Chinese never use other than the above described manure for their tillage crops, and thus they save themselves the double labor of planting noxious vegetables, and then, with an infinite degree of pains, eradicating them. R. L. A.

Buffalo, Jan., 1845.

(a.) We will make a simple suggestion to the public without charge. Insert under each aperture of a privy, drawers made of wood, iron, or metal, two feet wide, two feet deep, and any required length, with handles at each end, so that they can be as easily drawn out and handled as those of a desk. Put into these drawers peat, mixed with a little plaster of Paris, or charcoal dust mixed with plaster, to the depth of six inches or a foot. Thus arranged, not the slightest unpleasant smell would arise from the privy, and every week or fortnight, carts with tight boxes in them, should call at the house, and the drawers be emptied into them. In this way, the yards would be purified of a shocking nuisance, and vast quantities of poudrette could be weekly manufactured, for which any company could well afford to pay the city of New York $100,000 per annum.

Oil of vitriol diluted in water at the rate of five pounds to a barrel, poured into a vault of moderate size, will completely disinfect it. When drawers are placed to catch the fæces, as directed above, no other liquid but urine should be emptied into them.

Bou-singault estimates the solid and liquid excrements of a man at 618 lbs. per annum, containing 18 lbs. nitrogen—a quantity sufficient to grow 836 lbs. of wheat.—*Amer. Agriculturist.*

DIFFERENT KINDS OF PEAT.

"Why does not all peat act alike on land when used as a manure?" said a farmer to us the other day. He then went on to state that he had two places on his farm from which he took peaty matter or muck, but that they were very different in their action on his soil. One was very good manure, even when applied directly to the crop, while the other appeared to damage, or was injurious.

There are many causes for this, but one could not tell in what the specific difference consisted, without examining the two. Peat or muck is always found in situations which receive the washings and drainings of the surrounding lands. They are generally saturated with water. It seems a necessary consequence that they should be filled with the mineral matter which prevails in the vicinity. For instance, if the high lands in the vicinity should contain iron, would not the peat be likely to contain the several salts of iron also? This is almost invariably the case. Dr. Jackson, in a lecture delivered before the friends of agriculture assembled at the State House in Boston, one evening last winter, said:

"Sulphate of iron (copperas) is sometimes so abundant in peat as to prevent the growth of plants.'

Again he says—"It may be known that peat contains any notable quantity of sulphate of iron, by observing—

First, that the ashes of the peat is of a brick red color. Second, that the peat is very black and pasty. Third, that the soil thrown up around the margin of the bog, is in dry weather covered with an efflorescence of sulphate of iron, or copperas, which may be known by the taste. Or it may be proved chemically, by leaching the peat and evaporating the solution until crystals of copperas are obtained.

Sulphate of alumina (one of the ingredients of common alum,) also occurs in bogs, and is equally noxious with sulphate of iron. Both these salts kill plants."

Here we have a very good explanation why some peats are injurious to plants, and it is a very simple process of science to ascertain if either of the above salts are in excess. You can *boil* a quantity of the peat in water. Strain the water and evaporate it, and thus obtain the substances, if any there are; or you can leach them as above recommended, and then evaporate the liquor and obtain the ingredients for more particular examination.—*Maine Far.*

Sows Devouring their Offspring.—Some have supposed that this is caused by a desire for meat, and they have fed pork to their sows to remedy the evil. But this is a mistaken view of the case. When they are confined to a sty or small pen, they are deprived of pure earth, and various condiments that conduce to their health, which causes an appetite unnatural, and the unfortunate animal, in her frenzied state, attempts to satisfy it by eating her own offspring.

It has been found that when hogs run at large, seeking various condiments as they please, they do not devour their young. Allow the sow as much room in the yard as convenient, and throw in fresh pure earth, if there be not a supply; and if she be limited to a small space, where there are no green vegetables, give her weeds and grass sods, also charcoal and rotten wood.—*Bost. Cult.*

Insects.—Those who wish to be successful in raising fine fruit and vegetables, must be continually on the alert to guard against the ravages of insects. You may lose your fine bed of cabbages in an hour, by the want of proper vigilance; and so it is with everything else. It becomes every man who tills the soil, to study the nature and habits of insects; and this is a subject which most of us, to our very great disadvantage, are wofully ignorant of. We must get Harris, or some other good work on the subject, and *study.*—*Genesee Far.*

[The above advice is good and timely.]

From the American Agriculturist.

GUANO AND ITS USES.

Exhaustion of Lands.—I am much surprised at the opposition and the numerous objections constantly brought forward against the use of guano, most of them unfounded—many perfectly absurb; for if large quantities could be brought here, one general benefit must accrue to the farmers, even to those who could not use it; viz: a decrease in the price of the manure, which is sold in large quantities in the vicinity of all populous cities. One of the chief of these objections is, *that it will exhaust the soil;* however, before I show conclusively that this cannot be the case, permit me to discuss the question of "exhaustion," on which our farmers have often very wrong impressions. Much practical good may be learned on this subject from the gardeners, who grow vegetables for the markets; they never have an idea of *exhausting* the soil, and many obtain three and even four crops from the same piece of land every year.

I am well aware that under the existing ideas of rotation of crops, &c., it is expected that after two years' manuring and cropping, virtue enough should be left in the soil to bear a good result of grass the third year without manure; but it would certainly be better to get off three luxuriant crops successively. I should wish to exhaust my land completely every year; to take off everything the manure put on will allow, leaving none of it to be washed away and be useless by the winter flood and draining. I would not only take away, in the shape of crops, all the manure put on, but all that this manure would enable me to take in addition from soil and atmosphere; and by proper management, I do not doubt that this may be done with grass. An analysis will soon show what is requisite to be added after each so called exhaustion.

Application of Guano to Corn.—Take a sandy sterile piece of land, plant it with Indian corn, and manure at the rate of one and a half ounce to the hill. Of this ounce and a half, about one-fourth consists of the ammoniacal salts; all this, with the exception perhaps, of a small portion of humate of ammonia, is used by the crop; then one-third consists of phosphate and oxalate of lime, and phosphate of magnesia. This is used by the crop chiefly for the purpose of forming the embryo or sprout of the seed. Now as only about one-third of the substance of these embryos or sprouts of the seed consists of the phosphates, it is quite clear that it would take several millions of them to use up 33 per cent. of an ounce and a half; therefore, a large portion of these phosphates remain unused in the soil, ready for another crop. We then come to one-eighth or one-tenth of soda and potash salts; of these, perhaps, five-eighths or three-quarters is used for the crop, the remainder is left in the soil. The rest of the guano being chiefly moisture, land, and animal matter, need not enter into our calculation.

The position then is, that each year of manuring with guano, luxuriant crops are taken off, leaving still in the soil a large proportion of the phosphates, and small proportions of the soda, potash and ammonia. Now in what ingredients is barn and stable manure chiefly deficient? Why, in phosphates. This is proved not only by analysis of the manure, but by the practice of English agriculture; for, after several years' cropping, land, however highly manured with it, will not bear good crops of wheat without an additional supply of phosphates, which is afforded by an application of ground bones. Therefore, if land is manured three or four years in succession with guano, and afterwards with barn and stable manure, there will be an accumulation from the former remaining in the soil, of exactly those ingredients in which the latter is most deficient, and this seems to me to settle the question of exhaustion.

Artificial Guano.—There is another objection to guano, which is, that we can make an artificial guano as good and cheaper. There is no doubt that after chemical analysis has ascertained the ingredients of guano, if we mix these ingredients together, from whatever source they are obtained, in about the same proportion, we shall make a manure of almost equal value. But suppose only the small quantity of one hundred thousand tons of this artificial guano were wanted in this country, if the ingredients could be obtained at all, would not their value be so much enhanced by this demand as to render the price no longer economical? The recommendation of the use of guano by no means implies that the other manure of a farm should remain idle; far from it. On the contrary, the study and knowledge of this subject will prove to the farmer the value of much that has been hitherto totally disregarded as manure, and will show him that if the ammonia of guano has lain so long in a tropical region undissipated, he can also fix and preserve the ammonia which is necessarily derived from every living being on the farm.

I trust this subject of the exhaustion of soils, will receive the earnest attention of the practical farmers this year. If they would lay aside a little of their preconceived notions respecting exhaustion, rotation, &c., and constantly experiment judiciously and carefully on five or ten acres, they would always be learning something, and always improving by the exercise of their powers of judgment and discrimination.

J. E. TESCHEMACHER.

Boston, March 11, 1845.

IMPROVED MODE OF CULTIVATING GRASS.

Among the improvements of a few years past, there are none that promise more than those in the cultivation of grass. The peculiarity of this culture, first brought to the notice of the public by Mr Phinney, is, that the land is continued in grass year after year, without the intervention of another crop, except occasionally Indian corn. It is done by turning the furrows flat, rolling them smooth, harrowing or cross-plowing, or both, without disturbing the sod, applying compost manure and the seed upon the surface, and harrowing it in. This process is repeated as often as the land demands manure. It is kept in a favorable condition for supporting the crops, by the decaying vegetable matter that was upon the surface.

Another modification in the cultivation of grass, which has been successfully practiced is, by sowing the seed among the corn at the last hoeing—the ground being left level. Repeated experiments have shown that the old practice of raising a hill about the corn is not attended with any benefit. If then, the smooth culture of the corn will aid in bringing the land into good condition for grass, which is the primary object in view,—our crops of barley, oats, and rye being merely raised as secondary objects of attention—does it not behoove our farmers to inquire whether their grass-seed cannot be advantageously sown in the summer or autumn, without any intermediate crop of grain?—*Proctor's Address.*

GOOSEBERRIES.

This fruit is very much neglected because its merits are only little known. There are two sorts found in our gardens, the common gooseberry, and English, by which name is meant a large, coarse, thick-skinned, green variety. It is not generally known that there are any other cultivated sorts; and as these are inferior they are little cared for. The Lancashire (England) nurserymen published three hundred varieties! Some of these varieties bear fruit as large as a medium sized plum. There are four colors, red, yellow, green, and white; to each color are two sizes, large and small fruits. In sending for them, select a trust worthy nurseryman, and request him to send, of each color, such kinds as have proved, with him, the best; and in such numbers as you may wish. The gooseberry delights in three things, a very rich soil, a shady position, and a free circulation of air. If accommodated in these respects, it will be free from mildew and give a sure and ample crop of delicious fruit.

Hill tops are the best sites. In gardens the open and airy parts should be selected; in low and confined situations they mildew. Hog manure is esteemed the best for this fruit. When the fruit begins to set, if threatened with blight, take a moderately strong lime-water, (sulphur added will be all the better,) or, if lime is not convenient, ley from wood ashes, and drench the bushes freely with it. A large watering-pot should be employed. Gooseberries may be increased from cuttings like the currant, and with the same ease.

CURRANTS. There are very few varieties of this fruit. Our common red and white, if well cultivated, are very good. The large Dutch red and white are much larger varieties and generally preferred in the best Eastern gardens. Every farmer, if he has nothing else, has a long row of currant bushes, and gets, usually, five times as many currants as he can consume.

We advise those who are careful in such matters to train their currants to a tree form; let a cutting be set, rub out all the buds but two or three at the top; at about twelve or fifteen inches from the earth let the branches put out, and never permit suckers to grow, or branches to stand lower than this. The difficulty which some have found in tree currants, that they are top heavy and require staking to prevent their being bent by winds and their own weight, arises from having the stem too long. We have seen two feet and even more allowed. If twelve or fifteen inches be allowed, the stem, in a few years, will become strong enough to withstand winds and sustain its own top. Thus formed, they are beautiful to the eye, convenient for borders, (allow a free circulation of air under and through them,) are easy to work in spring or fall manuring, and easy to prune, when, as should be done every year, you take out the old wood.

Gooseberries will do better to be trained in this way, than in the bush form. The top once formed, there is no difficulty in keeping it so. If you are faithful to grub up every sucker for one season, you will have few to plague you after that.—*Ia. Farmer and Gardener.*

To Protect Hens from Vermin.—A gentleman wishes us to state the fact, that *pennyroyal* woven in their nests, will certainly protect hens from vermin. He generally makes the nest entirely of this strong-scented herb.—*Southern Planter.*

SUNFLOWER SEED FOR POULTRY.

BY MRS. KIRKLAND.

In a certain garden not very well kept, it so happened that a great number of sunflowers sprang up; and as weeds were not lacking in the rich soil, the intruders escaped notice, until they grew so stout that it seemed a pity to pull them up, especially as there were few pretty things to supply their places. Tall hollyhocks there were, and four o'clocks, and here and there a yellow lily; while rhubark run to seed, and stray heads of asparagus, spoke of neglect and indifference in the owner. Melon vines were allowed to straggle across the paths, and not a few great, starting, yellow pumpkin blossoms mingled with the signs of choice fruits, threatening utter destruction to melons of all kinds, by the intermingling of improper farina. But nobody thought of these things. "The garden" is too often a despised part of the thriving farm; and both beauty and comfort are unnecessarily sacrificed, from the mistaken idea that the time spent in gardening is wasted, or has at best only the reward of "pleasing the women folks."

Harvest time came, and now all idea of introducing any reform in the garden was out of the question. The melons, as they ripened, proved very much like squashes. The weeds all went comfortably to seed, and lived to see an infant crop begin to sprout up, green and tender, about their tough old stems, even before the frost had had time to despoil the parent heads of their branches. Some borders of stone crop with which certain beds, the objects of female care, had been ornamented, had expanded into wide banks of shaded green velvet—the only beautiful result of neglect in a garden. The girls had become quite discouraged, seeing the work get so far ahead of them for want of some aid from strong arms.

Fanny L.—— sat in the window which overlooked this wilderness of weeds, gazing musingly, and with no slight touch of sadness, at the ruin which had enveloped the scene of her pleasant spring dreams. She saw whole broods of fowls scratching and half burying themselves in the midst of her pretty jonquils and other early bulbs; and she had not the heart to go and drive them away; for, as girls in the country often say, "where's the use?" if father or brothers will not secure either the garden or the fowls so as to keep them apart.

Presently she observed a great commotion among the sunflowers. These staring luminaries had grown very variously, some tall and mast-like, others stunted and slender, with small and poor heads. But these less favored specimens seemed more agitated than their more lofty Brethren; and upon closer scrutiny Fanny observed that a detachment from the fowl army were attacking the sunflowers in the most energetic manner, springing up at them, to the very extent of their ability, and nipping them so shrewdly that the great black heads were fain to bow at each fresh attack.

After noticing this new warfare several times, it struck our young gardener that there must be something very attractive in the food for which the chickens were willing to work so hard; and she determined to make a little experiment as to the value of it. So without saying any thing of her intentions, she decapitated all the sunflowers which had been too high for the fowls to reach, using for their stubborn necks her brother's little hatchet; and when she had deposited them in certain empty barrels in the barn, she contrived to have a portion of the fowls shut up, and fed them every day with a good portion of the sunflower seed, in addition to the coarse food which they shared with the rest, and a pan of water daily.

The very first time a dish of fowls was wanted for dinner, Fanny sacrificed a pair of her stock, and she was delighted to hear her father ask, "Why wife! what fowls are these? We never had any thing like 'em before! Where did you get 'em? Their flesh is as tender and juicy as can be, and they are as fat as butter!"

Fanny now told her little story, and as she had noticed an exact proportion between the size and richness of the seed and the quality of the soil in which the plants happened to stand, her father was induced the next year to manure a patch purposely for sunflowers, and to cultivate them with express reference to the improvement of his fowls.

Since that time this provision has not been neglected; and although some of the neighbors refuse to believe that sunflower seeds can make any difference in the juiciness of "chicken meat," yet they cannot deny that Mr. L—'s fowls are the best—far the best in the neighborhood; and Fanny's observation of an apparently trifling fact has brought many a dollar to her father's pocket, to say nothing of providing a home-bred delicacy for the table.

Now, Mr. Editor, I have recounted Fanny's experiment in all simplicity; wishing to know from some of your numerous and practical correspondents, whether they have ever made a similar one with like results—since we must not think that one fact makes a theory, any more than one swallow a summer.—*American Agriculturist.*

ONE IMPORTANT CAUSE OF NON-IMPROVEMENT IN AGRICULTURE.

I had occasion to visit the son of a friend of mine, at a school of great respectability in a wealthy agricultural district. The master, a very intelligent person, showed me the details of his well-arranged establishment, which was certainly a pattern in every respect. On entering the well-filled school-room he observed, that most of his scholars were farmer's sons. Glancing at his library I enquired what books on agricultural subjects it contained? The master seemed struck with surprise (as if the thought of such books had never occurred to him,) and replied, "With shame I acknowledge, *not one*; but send me a list of such as you recommend, and I will immediately procure them." Now, I apprehend this case might be multiplied by a thousand or more. Can we wonder then that a youth who never heard the word agriculture at school, and who is seldom or never sent into different districts to be taught agriculture as a science, should go home to his parent, and follow his plan of farming—be it good, bad, or indifferent. In all other trades and professions an apprenticeship is considered essential to the acquirement of knowledge; but farming, the most necessary of all trades, is to be left to chance, or rather mischance. A system of uniformity is essential in making a hat, coat, or shoes—there are established educational rules for the church, the bar, and the senate; but agriculture, the greatest interest of all, on which our very existence depends, economically and politically, is to be like a ship without a compass, tossed about by the ever-varying gale of individual opinion, without a hope of reaching the port of Perfection. Were a youth ever so much inclined to furnish his mind with comparisons and observations of the various systems of culture in our own different counties, as well as in foreign climes, there is, under the present school system, no opportunity for his doing so; and, no doubt, he would be surprised if told that we are a century at least behind the Chinese in agricultural practice. I hope we shall soon see every school, and, in fact, every farmer's parlour, possessing a few sound practical works on agriculture. I presume no man will consider he knows every thing in agriculture—if he does it is unfortunate for him. Little as I am acquainted with the subject, I am daily convinced that it is full of interest, and of such extent that a lifetime of study and practice would find us on the wrong side of perfection.—*London Agricul. Gaz.*

ROTATION OF CROPS.

While there is now great attention paid to draining, subsoiling, and the application of artificial manures to the improvement of agriculture, there has not been that attention paid to the necessity of a judicious rotation of crops as the subject requires. Let the land be supplied with all the chemical elements of vegetation in abundance, if the same crop is sown two or three years in succession, it will be found deficient; also when crops nearly allied succeed each other. For instance in strong land, if one part is sown with oats and another with beans, afterwards fallowed and treated exactly alike and sown with wheat, the crop will be better on the bean part. Although the cause has not been satisfactorily accounted for on chemical principles, it would appear that the excretions of the roots of one culmiferous plant are injurious to those of another of the same family, or that the one abstracts some peculiar principle from the soil essential to its vigorous growth. In like manner, red clover in the four-course system, after a number of years is found to fail, not, as has been stated, from a deficiency of gypsum (sulphate of lime) in the soil; for the application of that substance, although attended with beneficial results in some cases, has not altogether cured the evil, and in others (an instance of which occurred in this neighborhood) entirely failed. In land that was sick of clover, instead of sowing it every time of fallow, I have missed it once in a course, so that the interval between the crop was seven or eight years; this plan, as far as I have observed, is attended by a complete restoration of the crop, and is the best to adopt in the present state of our knowledge.—*English paper.*

BEANS AMONG CORN.

White beans may be planted in each hill of corn without much increasing the labor of tilling, and as you will often harvest about as many beans, with the corn as without it, the economy of planting both together on suitable soils is good. Some of our farmers say they can harvest ten bushels of beans from an acre that has fifty bushels of corn on it, and that they can perceive no injury arising to the corn crop from the proximity of the beans.

White beans may be planted as late as the first of June, and it is better to plant them after the corn is up than before, for they ought to stand on the south side of each hill. The labor of preparing an acre for planting, and then of tilling the plants through the month of June is no small affair; we must therefore have a good harvest or we lose money by the operation. Fifty bushels of corn, ten bushels of beans, and twenty bushels of turnips, or their equivalent in pumpkins, together with all the corn stover that will grow on an acre, will repay the labor of tilling and will leave something for the use of the land and the manures.—*Mass. Ploughman.*

APPLICATION OF MANURES.

[The following is extracted from a communication in the South Carolina Temperance Advocate:]

In the application of manure, we should have an eye to its permanent benefits. We should guard against its waste: and that method is to be preferred which best secures us against this.

There is a popular opinion that manure *sinks:* that although it may be wasted, to a certain extent, by evaporation, the principal waste is occasioned by its actually descending into the earth, by the action of rains, until it gets beyond the region occupied by the roots of the crops, and ceases to do them any good.

If this were so, to any practical extent, it would be a very good thing; for it would deepen the soil, and we should have nothing to do but to plow deep, and turn up the manure again before it sinks too far, when it would have its former effect upon the crop, until it should sink a second time. And this operation might be again repeated, with the like beneficial results. It would follow, too, that the pervious soil would be the most valuable for manuring; because it could sooner and more easily be made deep.

But is the popular opinion true, that manure is wasted by sinking? I shall proceed, in the first place, to prove that it is not; and then to show the wrong practices that have flowed from it, and will continue to flow from it, so long as it holds possession of the popular mind.

That manure does not sink beyond a proper depth, may be easily ascertained by very simple experiments and by a very little reflection.

Let any one who doubts, put a spigot in a common cider barrel, knock out the head of it, and fill it with clean sand nearly to the top. Then let him pour upon the sand the most impure liquid manure he can find. He will be able to draw from the spigot nearly pure water. The impurities, which constitute the manure, will have been detained by the sand, within a short distance of the top of the barrel.

It is upon this principle that farmers are in the habit of clarifying their cider. It is also a well known method among grocers for freeing their liquors of objectionable matter; and every confectioner habitually employs it in his business.

If we look to the operations of nature, we shall recognize it there. If the impurities on or near the surface of the earth, were carried down by rains, we should never be able to get a palatable drink of water. But the beneficent Parent of all good has so ordered it, that the rain which descends on the surface of the earth, shall be drained of all its own impurities, and of those it contracts near the surface, by passing through the superior strata; and it gushes out pure and transparent in refreshing springs and wells.

I take it for granted, that whoever bestows a little reflection upon these things, will be convinced that the opinion that manure sinks beneath of the roots of cultivated plants, is entirely erroneous.

It is an indubitable fact, however, that after a time, manure does cease to produce any sensible effects. I think it occurs by evaporation. Perhaps a few simple experiments will establish this.

If you enclose a portion of manure in a box, and place it where it shall not be exposed to the action of light and heat, it will retain its fertilizing qualities, for almost any assignable time; and will even acquire from the atmosphere, (if accessible to it,) an addition to them. But, if you place it on a board or stone, or in a tin box, open at the top, but enclosed at the sides, (a method I select, as rendering it certain that no part can sink, though it may escape at the top,) and then expose it to the rain and sun, or to the sun alone, it will, in a very short time, become entirely inert, and its escape will be rapid in proportion to the intensity of the heat to which it is subjected.

There are other proofs. Every body has observed the rapid deterioration of land, exposed to the sun, without the benefit of trees, or of a crop, to shade it.

Having thus learned that manure is not wasted by sinking, but by *evaporation*, this may be the proper place to inquire the reason of the well known fact, that, when covered at the same depth, it is wasted sooner in sandy than in clay land. This depends upon the superior heat of the one over the other, which of course causes a more rapid evaporation.

The universal practice which has followed the popular erroneous opinion alluded to, has been to deposit manure shallow in the sand, from an apprehension that it might sink. From what has been shown, is it not a neccessary inference that the practice of making a shallower deposit in sand than in clay, should be *exactly reversed?* The danger of evaporation being greater in the former than in the latter case, the deposit should be deeper to avoid it.

I might extend this paper by other practical remarks and inferences; as, for instance, that the evaporation of manures being established, it is of importance in all cases where other circumstances will permit, to deposit them deeply, not only with a view to the permanent improvement of the soil, but to prevent the unhealthy contamination of the air by the deleterious gases escaping, by evaporation, from the fertilizing matter.

COATSWOOD.

[The subjoined remarks from the Boston Cultivator, refer to the foregoing:]

On Manures Descending.—In an article from the South Carolina Temperance Advocate, which has been copied into a number of publications, it is contended that the waste of manures is from evaporation, not from descending below the roots of plants. To illustrate this, it is recommended to put a spigot in a cider barrel, knock out the head, and fill it most full of clean sand, and then pour on the sand the most impure liquid manure, and from the spigot may be drawn nearly pure water, and the impurities will have been detained near the top of the barrel. And it is further stated that upon this principle farmers clarify their cider.

At present it is not our intention to say anything on the main subject as to the loss of manure by evaporation or descension, but to show the false conclusions which the writer draws from the experiments which he recommends to illustrate and defend his position.

The best of manures are such as are soluble in water, and from this circumstance can be readily taken up by the spongioles or rootlets and afford nourishment to the plant. There may be good manures which do not become valuable all at once, but become so by gradual decomposition. Now, by filtrating liquid manures through sand, the hard, insoluble parts of matter are retained, while the fertilizing elements, with which liquid is saturated, being in solution, pass through the sand. The rich properties, in a proper state for the roots to absorb, go through the sand, while the insoluble parts, such as the roots would not absorb, are left in the sand. So it is evident that this straining through sand downward, is like straining through the roots by absorption upward.

When the farmer turns his cider on sand, does he catch pure cider at the spigot, it being divested of foreign matter by infiltration, or does it come out pure water? If all the good properties of cider will pass through sand, then those of manure, many of them at least, being held in solution, will pass through also.

While there is so much false reasoning and such erroneous conclusions are drawn, nothing will become established.

Does not the sap from the maple look as clear and pure as water, and will it not run through fine sand, carrying with it its saccharine quality? Common salt on some soils, and for some plants, is an excellent manure, yet this in solution will run through sand, and the same may be said of all the elements that constitute vegetable substances.

Let a person examine a tree 100 feet in height, and eight feet in diameter, and consider how this enormous body has been formed. If he has studied the science of botany, and so much of chemistry as is immediately connected with this branch, he can tell the principal elements of which the tree is composed, and in a measure the way in which its composition has been effected. But to adapt our view to every reader, we ask him to judge whether all the elements which compose so large a tree, and all other vegetable substances, have not either been taken up in solution, through very fine pores in the roots, and by absorption from the atmosphere, through the delicate leaves; and is it not reasonable to suppose, that matter taken up and composing a tree, or other plant in this way, would, while in solution, find its way through sand or such parts of matter as are taken from the earth in the production of vegetables. We believe that these remarks are sufficient to convince every reader, not convinced before, of the fallacy of a posi- which we have attempted to controvert.

THE BOMMER METHOD OF MAKING MANURE.

Mr Editor—At the request of a friend, who entertains perhaps too favorable an opinion of my practical knowledge of planting, I send you for publication, the following remarks on my experiment on the Bommer method of making manure. It was no part of my purpose, at the outset, to publish any thing in relation to this process, which I knew was already in the hands of many who were every way more capable of performing this public service. This will account for, if not excuse, that want of precision in the results of the experiment, which could alone render it of the slightest importance to scientific agriculture. Where this precision is wanting, my individual opinion must go for what it is worth.

In the latter part of 1843, I purchased the patent Bommer method of making manure, and in January, 1844, I put up a heap 30 by 40 feet, and 6 feet high, composed of leaves, straw, and a large proportion of corn-stalks, which I watered for about six weeks, according to the printed directions which accompany the patent. During this period, the weather was extremely cold and dry, which is considered the most unfavorable state of the amosphere for fermentation or decomposition. On examination of the heap, I found the materials had very unequally decomposed; that the most solid matters, as the corn and cotton stalks, were but

slightly decomposed, while the less solid, such as straw, leaves, &c., were rapidly rotting, though not thoroughly decomposed. Into the lye, with which the heap had been watered, I put four barrels lime, thirty pounds saltpetre, and two two-horse wagon loads of fresh stable manure.

About the first of March, one half of the heap was hauled out on one part of a field of worn land, the other part of which I manured with stable manure, and planted the whole field in corn. The best judges that saw the field, pronounced that part manured with the Bommer manure decidedly the best. The other half of the heap was hauled on to part of a cotton field, otherwise unmanured. In the spring and first part of the summer, there were periods of protracted drought, and the superiority of the Bommer manure, imperfectly rotted it was, over the stable manure, was so marked, that the slightest observation could not fail to detect the difference in the size and vigor of the stalks and ears.

In February, 1844, I put up another heap; of the labor and time employed on which, I am enabled to give a more specific account. I had fifteen hands and two wagons engaged in this work: the materials employed were pine leaves, straw and cornstalks, all in a dry state, much the largest portion being pine leaves. The site was cleared of trees and shrubs, by digging up their roots. The vat was excavated, and the grate constructed, and 500 wagon-loads of material were put on, and all readiness for watering in eight days.

Full half the time and labor was consumed in clearing the trees, excavating the vat, and making the grate, which need nothing but slight repairs to keep them serviceable for years. On this last heap, I used ten barrels of lime, four loads ashes, forty pounds saltpetre, four bushels common salt, and about four loads fresh stable manure. From this heap, I hauled on a cotton field about 300 wagon loads of as fine, rich, well rotted manure as I have ever seen, and have manured for the present crop about thirty acres in drill, filling up the furrow with the manure. I have applied the lye to my garden vegetables, with the most happy effects. It is, indeed, to this mixture I ascribe the chief efficacy of the manure, and the absorption of the largest quantity of it is of the greatest consequence to the fertilizing property of the manure. Frequent and thorough watering is therefore of indispensable necessity. Disappointment awaits the farmer who does not give this part of the process constant attention. To obviate as far as possible, this laborious part of the previous, I have used a common plank pump, of three inches bore, made by a common carpenter, with a hose made of cotton, which should be oiled or painted. With these appliances, three able-bodied hands watered the heap in three or four hours.

In conclusion, I have no hesitation in declaring my opinion, that a planter may manufacture as much of this manure in the year as he can haul out in the next spring; that the labor and trouble of the method, when once fairly under way, is scarcely beyond what is necessary in making manure of any other kind; that the expense is trifling compared with the returns; and I heartily and honestly recommend it to every farmer and planter, who wishes to increase the product of his fields, and render their improvement permanent.

Yours, &c. WM. BYNE.

—*Southern Cultivator.*

[The readers of the Farmer may remember that we have published, within a year or two, an account of the Bommer *(patent)* process of manure making, communicated originally to the Albany Cultivator, by the late Commissioner of Patents, who, in describing the process, stated that no *patent* had been granted for it in the U. States.]

NUTRITIVE QUALITIES OF PEAS.

It is thought by many that peas contain a larger quantity of nutritive substance than almost any other vegetable. Liebig says that peas abound in a substance which he calls *vegetable caseine*, which we suppose, being interpreted, meaneth *vegetable cheese*. His language in regard to it is as follows:

"The third constituent of the vegetable food of animals, is vegetable caseine. It is chiefly found in the seeds of peas, beans, lentils, and similar leguminous seeds. Like vegetable albumen, it is soluble in water, but differs from it in this, that its solution is not coagulated by heat. When the solution is heated or evaporated, a skin forms on its surface, and the addition of an acid causes a coagulum, just as in animal milk."

This, then, is what he means by vegetable *caseine;* in fact, it may be called *pea cheese*, or *bean cheese*, if it should be coagulated by acid or rennet, perhaps. Query—will it keep well when thus coagulated and dried? If it will, it would afford a portable substance for making pea soup. Why won't some Yankee set up a pea and bean cheese factory?

We collect the following comparison of the ingredients of vegetable and animal (milk) cheese from his tables:

100 *parts vegetable cheese.*		100 *parts animal cheese.*	
Carbon,	54.138	Carbon,	54.825
Hydrogen,	7.156	Hydrogen,	7.153
Nitrogen,	15.672	Nitrogen,	15,628
Oxygen, &c.	23.034	Oxygen & sulphur	22.394

—*Maine Far.*

PREVENTING BIRDS FROM BORING TREES.

It is well known to many of our readers that the woodpecker, and another smaller bird called sometimes the sapsucker, and sometimes the "*Quank Quank*," are accused of puncturing the bark of apple and pear trees, and of sucking the sap therefrom, greatly to the injury of the tree. Others, however, assert that they are only in quest of insects, and that they merely puncture the bark to get them out. When trees of the above kind grow near a wood, we have often observed that they are more often visited by these birds, than when situated more remotely from it. Indeed, we have seen them pierced so full that you could hardly lay a cent upon the trunk without covering one or more of the holes.

Mr G. Reed, an aged and experienced farmer in the north part of this town, informed us, some years since, that he had succeeded in preventing the attacks of these birds by putting about in spots up and down the trunk of the tree, an ointment made of grease and sulphur. He stated that when his trees were infested by lice or (*aphis*) he bored into the trunk with a common nail gimlet, about an inch and a half, and put into the hole a small quantity of common Unguentum. In the course of twentyfour hours they all cleared out or died.—*Ib.*

SICK PIG—USE OF MULLEN IN PILES.

As it is a duty incumbent upon us, both on the score of humanity and profit, to keep our domestic animals comfortable, and to heal them when sick, if we can, every fact which shall be of use in such cases, is valuable. A few years ago, we had a valuable pig of one of the improved breeds, about ten weeks old, which we discovered to be troubled with what at first appeared to be piles. The intestine soon after protruded two inches or more, and in spite of every thing that could be done, would remain out. It was somewhat inflamed and swollen. We bathed the part in warm water, and also in a decoction of raspberry twigs—gave it charcoal, sulphur, &c., but it did no good. It had a good appetite, but as the weather began to grow warm, and flies appeared, we gave it up to its fate, excepting applying once or twice per day, common lamp oil to the part. In this condition it remained a fortnight, when a farmer in the neighborhood suggested the application of a strong decoction of common mullen leaves as a bath—stating that in a case of his own, similar, though accompanied with piles, he had experienced relief from such an application. The mullen was procured—the part washed with warm soap-suds, and then bathed with the mullen tea, and in a short time the protruding part took its proper place, and *grumphy* was discharged from the hospital, cured.—*Ib.*

SCIENCE OF VEGETABLE NUTRITION.

How is it that doctors do so disagree? Professor Emmons says, that plants "derive their sustenance almost entirely through their roots." *Per contra*, Dr. Lee is of opinion that at least 80 per cent. of all vegetable structure is derived from the atmosphere. Liebig's theory corroborates Dr. Lee's opinion: he says—"When a plant has matured the organs by which it obtains food from the atmosphere, the carbonic acid from the soil is no longer required." I have tried the experiment of clipping the leaves of Indian corn, after the pollen was developed: the result was, that no perfect ears were formed.

Professor Hall remarks, that different plants possess different powers—some absorbing more from the atmosphere than others; that a vine running over a dung-hill, or in the vicinity of animal and vegetable decomposition, will flourish better than in an inodorous atmosphere. This strikes at the doctrine of Dr. Emmons, and corroborates Liebig, Lee, and others.

Mr True Remick, of Maine, fats hogs on potatoes—*prima facia* evidence that vegetable physiologists are mistaken in supposing that potatoes do not possess the fat-forming elements of Indian corn. Query—How many boiled potatoes did those hogs eat? how hard was their fat? did it not evaporate when exposed to the hot frying pan? Did it never occur to a farmer, that the leaf-lard of a potato-fed hog would evaporate full 15 per cent. in the frying?—*S. W., in Genesee Far.*

Products from Manure.—Experments in Germany have led to the following conclusions:—If a given quantity of land, without any manure, yields three times the seed employed, then the same quantity of land will produce five times the quantity sown when manured with old herbage, putrid grass or leaves, garden stuff, &c., seven times when manured with cow dung, nine times with pigeon's dung, ten times with horse dung, twelve times with goat's and sheeps' dung, fourteen times with human manure or bullock's blood.

System and calculation are as necessary in farming as in commerce and manufactures.

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

Edited by Joseph Breck.

Boston, Wednesday, June 4, 1845.

DISSOLVING BONES IN SULPHURIC ACID.

Everything in the way of improvement in manuring land, being of the first importance to the farmer, we copy from late Nos. of the London Agricul. Gazette, the subjoined statements respecting the process and the utility of dissolving bones in sulphuric acid—a matter which, we perceive, is now engaging much attention from intelligent agriculturists in Great Britain. In case of the dissolved bones as manure, we do not see why the same advantages would not result from their use here as there—and we hope experiments will be undertaken.

At a special meeting of the Royal Agricultural Society of England, Mr Pusey, having adverted to the great discovery of the economical and efficient employment of bones as manure, when dissolved by maceration in sulphuric acid, proceeded to read extracts from Mr Hannam's Prize Essay on the subject, of which the following is a condensed statement:

In an experiment on turnips, the crop from dissolved bones was not only more abundant, but less attacked by insects than that dressed with undissolved bones, and the plants far more rapid in their growth the first month, and a gain of a month in the end. The results of several experiments by Mr Hannam were then stated, from which it appeared that 2 bushels of dissolved bones produced as good results as 16 bushels of undissolved; that 8 bushels dissolved, would greatly surpass 16 bushels not dissolved; and that 4 bushels in a state of solution, would be a proper quantity per acre, producing crops greatly superior to 16 bushels of undissolved crushed bones, and the cost less in proportion to the effect produced. [We suspect the effect on the *first* crop only, is here referred to.]

The proportions used had generally been, of acid one-half the weight of the bones, but one-third or even one-fourth the weight of the bones, might be employed: the proportion of water had generally been 100 times the weight of acid, but 50, or 25 times would serve the purpose efficiently. It must be understood that the more finely pulverized the bones are before mixing, the better.

Mr Thompson stated that he had last year found 4 bushels of dissolved bones, applied in the form of compost, fully equal to 20 loads of farm-yard manure, there being no perceptible difference in the crop throughout the field. Mr T. suggested, that as it was often difficult for a small farmer to find a vessel of sufficient capacity to contain the mixture, it might be found a simple substitute to form a sort of pond, puddled with clay, in which the mixture could be made. When the solution was complete, the clay might be mixed with the compost.

A letter from Mr Spooner, of Southampton was read, in which he stated that he had last year used bones and sulphuric acid in compost, for turnips. He had prepared it by placing 1 3-4 bushel of finely ground bones in a tub, with half their weight of acid, diluted with four times the quantity of cold water. After some hours, a few bushels of fine mould and some coal-ashes were added, so as to make the whole amount to 15 bushels of compost. The mixture was applied in the drills at the rate of little more than 2 bushels per acre, and, as Mr Spooner states, successfully rivalled 16 bushels of bones applied to an acre of superior quality.

We have given in the foregoing, all the information we possess, relative to this new, and it would seem, important discovery. Sulphuric acid is better known as *oil of vitriol*. We do not know what the price of it here is, but we see it stated that it had been offered in England, in the large way, at the rate of a penny per lb.

THE SEASON—VEGETATION.

The month of May past, was remarkable for extremes of heat and cold. Early in the month, there were some excessive hot days, such as would be called *very* hot, if occurring in July or August. The latter part of the month was notable for a number of hard frosts, which have done much injury to the corn, bean and potato crops, and in some sections of the country, peaches and other fruit trees have been more or less injured. The weather in April and the most of May, was unusually favorable for the preparation of the soil and the business of seed-time; but the long-continued dry weather which was so acceptable for these purposes, was very unfavorable for grass, and the prospect for this crop was any thing but encouraging. Since the copious rains of the last few weeks, grass has thickened up, and with the usual supply of rain between this and the last of the month, we may anticipate an average crop, maugre the complaints of grumblers, croakers, and the never-satisfied portion of community.

Where corn was cut down as it was in our own neighborhood on Friday night last, we would advise to go over the fields with a pair of shears, and cut off the blighted tops close to the ground. Beans, cucumbers, and other vines, must in many cases be planted again. Potatoes will be somewhat retarded, but will start again.

June has "come in" well and promising, and if due heat and moisture prevail to the 20th of the month, no doubt vegetation generally will wear a cheering aspect.

FRUIT TREES.

Mr Breck—I was much interested with the account of Mr Pell's management of fruit trees, in your paper of May 14. It appears that he succeeded in making a number of Newton Pippins bear two years successively, whereas the natural habit of this variety is to bear only every other year. His theory is, that such trees, producing very abundantly in their bearing years, require, in consequence of this, the next year to recruit themselves—but the necessity of this, he thinks, may be overcome, by supplying the trees yearly with such nourishment, and bestowing on them such care, as he specifies in the account referred to. If this be a fact, is it not an important one to fruit-growers? Some of our most esteemed varieties of the apple are only alternate bearers. If, by the management pursued by Mr Pell, they can be made annual bearers, it appears to me it would be of much advantage to the fruit-grower, and an important triumph of art over an obstacle of nature.

Respectfully, yours, S. S.

☞If the editor of the Ploughman will examine the last No. of the Philad. "Farmers' Cabinet," he will see where we got the article to which he refers. We will add, that we consider the article, as its author does—"good"—and his reference to it, a *very small* affair.

☞Have your house cellar cleared of all decaying vegetable substances, and apply whitewash unsparingly wherever it will improve appearances or serve to promote or guard the health of your family or your animals. Look to the state of your implements that will by and by be required for haying and reaping.

MASS. HORTICULTURAL SOCIETY.

EXHIBITION OF FLOWERS.

Saturday, May 31, 1845.

The first public exhibition of Fruits and Flowers in the New Hall took place this day, which, we believe, fully answered the expectations of the members of the Society, as well as the many visitors who honored us by their presence on this occasion. So numerous were the specimens of rare plants and flowers that we find it impossible to do justice to the numerous contributions in the small space to which our report is limited. Marshall P. Wilder, President of the Society made a brilliant display with a rich array of Tree Pæonies embracing 15 varieties and over 100 blooms; they presented a very imposing appearance and were justly admired by all who saw them; we noticed among them the following new varieties, viz:

Banksii, papaveracea, incarnata plena, Le Soliel, Grand Duc de Bade, Heldii plenissima pallida, Carlii alba plenissima, Kechlinii, Muhlenbeckii rubescens, Cassorettii globosa, Walnerii splendens, Atrorubens, monstrosa alba plenissima, Stellata atropurpurea, plenissima lilacina major, plena interius purpureus; Fuchsias, elegans superb, excelsa, Tricolor, and Moneypennii; Erica Ventricosa superba, and Tricolor, three vars Tartarian honeysuckle, Scotch Laburnum, Spiræ æriifolia; Seedling Azaleas, &c &c. all superb and very fine.

From J. P. Cushing, Esq. by Mr. David Haggerston, a magnificent specimen of Crinum amabile.

From the Conservatory of Col. Perkins, by Mr Wm. Quant, Fuchsia Stanwelliana, and F. Venus Victrix, very splendid; Specimen plant Pelargonium, var. Matilda, beautifully grown, and a large and gorgeous bouquet of beautiful flowers, 5 feet in height by 2 1-2 to 3 feet in width.

From Joseph Breck & Co. Pæonies, rosea albicans, officinalis, Moutan and others; tulips, Lupinus grandiflorus, variegated Mountain ash, with a great variety of other cut flowers, which all together made a most beautiful show.

From Messrs Hovey & Co. Achimenes Picta, Gladiolus insignis, and sp. Gloxinia, Bicolor, and variegata; Geraneum celestial; Nemophila discoidalis; Fuchsia Britania, Chauveira, Defiance.

New Roses. Comtesse Duchatel, Paul Joseph, Souvenir de Dumont d'Orville, Clara Wandael, La Reine, Marquis Boccella.

New Cactuses. Ashland, Nobilis, and two unnamed; Pæonia Burksia and Rawesii; six varieties of Hawthorns, Double Scarlet, New Scarlet, Dubia Zanthrocarpa, celsiana, Seedling Pelargoniums, fine; Calceolaias, Cinerarias, New Iris.

From William E. Carter, Cambridge, saxifraga pyramidalis; caragana and crosa, Magnolias, tripeta, acuminata, cordata, auriculata, purpurea glauca; Rhododendron ponticum; Cornus Florida; Cratægus, pink and white, single and double; Spiræa cratagafolia, chamædrifolia, hypericafolia, Azalea pontica, and nudiflora; Aesculus hippocastanum, Paria, Aquilegia Jocunda, (new and very beautiful;) vulgaris, Pæonia officinalis, arborea albicans, Roses, Chrysanthema flora, Eliza Savage, Agapena, cut flowers in variety.

From John A. Kenrick, Aristolocia Sipho, Azalias, ten vars; Pæonies—Banksii, and papaveracea; Hawthorns, four vars; Scotch and English Laburnums, Haletia tetraptera; Magnolius tripetela and cordata; and several vars Herbaceous Pæonies, &c.

From Parker Barnes, nine vars Fuchsias, viz: Chauveira, Conqueror, Transparens, Apollos, Brannus, Boydii, Eclipse, Defiance, Alata; Astromario Felos Martenia, new and very beautiful; Cactus Acrimana, Calceolarias, Pansies, Lilly of the Valley, Solomon Seal, Corcorus, Double Flowering Myrtle, Dahlias, Verbenas, Mexican Sage, Heliotrope, Geraneums, Ranunculus, &c.

From S. Walker, 5 fine bouquets; Pæonies, 4 var.; Lychnis Viscaria, (new); floscuii Veronica gentinoades, Ranunculus, Hawthorns, 3 var.; and several specimens of various plants.

From W. Kenrick, Pæonies—Arborea, Moutan, papaveracea and odorata; Carnea Rosea, and other fine kinds; Geraniums, Verbenas, Heliotrope, Laburnum, Purple Beech, Lupinus, white and blue; Columbine, Hawthorns, white and scarlet; Azaleas, Iris, Cactus, of splendid kinds, &c.

From the Messrs. Winship, by Mr Story, 12 var. hardy Azaleas; double white and single; double Pink, and scarlet flowering Hawthorns; Pæonies, of sorts; scarlet Horse Chesnut; Spiræas in variety, and other shrubby and herbaceous flowers.

From J. S. Cabot, Salem, 5 var. Tree Pæonies, very

beautiful, viz: Montan papaveracea, Banksii, Rosea, Purpura Violacea, fulgida.

From John Kimball, Boston, a fine plant in full bloom, of Hymenocallis Guiansis, very rare and beautiful.

From Wm. Wales, Dorchester, a variety of fine Hawthorns.

From Orr N. Towne, Fuchsia gracilis, and corymbiflora; splendid plants, eight feet high.

From Mr Mather, Brighton, by T. Needham, plants of Azalea variegata, and Clematis Sieboldii.

From A. Bowditch, two fine plants of Calceolaria, one of Cactus, other plants, and five handsome bouquets.

From S. R. Johnson. Tulips, Persian Lilacs, &c.

From Mr Sweetser, Boston, fine Snowballs.

Premiums for Azaleas, Hawthorns, and Tree Pæonies.—Messrs. Haggerston, Quant and Breck, were appointed judges to award the Society's premiums on these flowers, who subsequently reported—for *Azaleas*, 1st premium of $3, to John A. Kenrick; 2d do. of $2, to the Messrs. Winship. For *Hawthorns*, 1st premium of $3, to the Messrs. Winship; 2d do. of $2, to John A. Kenrick. They also recommended a gratuity of $5 to M. P. Wilder, for his show of Tree Pæonies, 15 vars. and 100 specimens. No premiums on *Pæonies* were awarded, as the requisite number of vars. were not set up. For the Committee, H. W. Dutton.

Fruits.—The exhibition of Grapes this day, was remarkably fine.

J. P. Cushing, Esq., by D. Haggerston, exhibited Grapes as follows: Black Hamburg, extra fine; Zinfindal, White Sweetwater, Golden Chasselas, Grizly Frontignac, fine; Muscat of Alexandria, fine; Royal Muscadine, White Frontignac.

Commodore Nicholson exhibited Peaches of good flavor for the season.

From J. F. Allen, Esq., Grapes: Black Hamburg, fine; White Chasselas, Chasselas Bar sur aube, fine; White Frontignac, extra; Miller's Burgundy, Early Black July, Black Portugal. Peaches—Royal George, beautiful; Gross Mignon.

Joseph Balsh, Esq. exhibited a Catillac Pear? from St. Helena.

From J. Owen, Apples. From Geo. Walsh, Apples. From Wm. Carter, Apples—Hubbardston Nonsuch.

For the Committee, Otis Johnson.

Vegetables—A brace of extra large Cucumbers, from J. Bumstead, Roxbury.

A brace of very fine Cucumbers, from Thos. Crawford, Bedford.

From A. D. Williams, Roxbury, 16 stalks of Rhubarb, large size; three bunches Asparagus; 12 heads Lettuce.

From the Messrs. Winship, by Mr Story, 20 stalks Victoria Seedling Rhubarb—very fine.

For the Committee,

Wm. B. Kingsbury, *Chm'n.*

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, to the week ending June 1.

June, 1845.	7 A.M.	12, M.	5, P.M.	Wind.
Monday, 26	59	65	62.	S.
Tuesday, 27	52	79	68	S.
Wednesday, 28	56	79	64	S. W.
Thursday, 29	66	68	49	S. E.
Friday, 30	41	54	49	N. W.
Saturday, 31	41	66	53	N. W.
Sunday, 1	52	72	67	E.

BRIGHTON MARKET.—Monday, June 2, 1845.

Reported for the N. E. Farmer.

At market 425 Beef Cattle, 10 pairs Working Oxen, 800 Sheep, and 1675 Swine. 80 beef cattle and 500 swine unsold.

Prices.—*Beef Cattle*—Last week's prices were fully sustained. A few better cattle were at market, many of which remain unsold. We quote Extra, $6,00. First quality, $5,75 a 6,00. Second quality, $5,25 a 5,50. Third quality, $4,75 a 5,00.

Working Oxen.—Sales $65, $72 and $87.

Sheep.—Small lot sheared, at $1,50 to 2,62.

Swine.—Good lots to peddle, 4 and 5. Old hogs, 4 a 4 1-2. At retail, from 4 1-2 to 6.

WHOLESALE PRICES CURRENT.

Corrected with great care, weekly.

SEEDS. Herds Grass, $1 75 a 2 00 per bushel. Red Top 60 to 65 cents. Clover—Northern, 8 to 10c.—Southern, 7 a 8c. Flax Seed. $1 50 per bushel. Lucerne, 33 c. per lb. Canary Seed, $1 50 a 2 00 per bushel. Millet, 1 75 to 2 00.

GRAIN. The market has been fully supplied by arrivals, which have found buyers at quotations.

Corn—Northern, new, bushel 51 a 52—Southern, round yellow, 49 a 50—Southern flat yellow, 48 a 49—do. do. white 45 a 46—do New Orleans, 00 a 00—Barley 00 a 00—Rye, Northern, 70 a 00—do. Southern, 67 a 68—Oats, Southern, 00 a 00—Northern do. 35 to 36—Beans, per bushel 1 12 a 1 62.—Shorts, per double bush. 25 a 27—Bran, 17 a 18.

FLOUR. Market dull; holders offers freely at $4 75 for Genesee. Purchasers hold off, except to supply immediate wants. Stock not large enough for the season.

Baltimore, Howard Street, 4 mos. cr. new, $4 81 a 0 00—do. wharf, $0 00 a 4 75—do. free of garlic, $0 00 a 0 00—Philadelphia do. 4 mos. $0 00 a 0 00—Fredericksburg, low l'd new $4 75 a 0 00—Alexandria, wharf, 4 75 a 0 00—Georgetown, $0 00 a 5 00—Extra do. 5 25 a 5 75—Richmond Canal, $4 75 a 4 81—do. City, $6 00 a 0 00—Petersburgh, City, $5 00 a 5 50—do. Country $0 00 a 0 00—Genesee, common, cash, $4 68 a 4 75—do fancy brands, $4 87 a 5 12—Ohio via Canal, $0 00 a 0 00—do do New Orleans, cash $0 00 a 0 00. Rye, $3 50 a 0 00—Indian Meal in bbls. $2 37 a 2 50.

PROVISIONS. There has been for several days past quite a brisk demand for Beef and Pork, for the supply of whale ships and the home trade.

Beef—Mess 4 1-0 new bbl. $9 00 a 10 00—Navy—$8 75 a 9 00.—No. 1, $0 00 a 0 00—do Prime $6 00 a 6 50—Pork—Extra clear 4 mo. bbl. $14 50 a 00 00—do Clear $14 00 a 00 00 do. Mess, $12 50 a 13 00—do Prime $10 00 a 10 50—do Mess from other States,— a — —do Prime do do $0 00 a 0 00 do. Cargo do. 0 00 a 0 00—Clear do do $00 00 a 00 00—Butter, shipping, 12 a 15—do store, uninspected, 8 a 12—do dairy, 15 cts. a 17—Lard, No. 1, Boston ins. 8 a 8½—do South and Western, 8 a 8½—Hams, Boston, 8¾ a 9—Southern and Western, 8¾ a 0—Cheese, Ship'g and 4 meal 5 a 7—do new milk, 7½ a 8.

WOOL. Duty. The value whereof at the place of exportation shall not exceed 7 cts. per pound, 5 per cent. ad val. All whereof the value exceeds 7 cts. per pound, 40 per ct. ad. val. and 3 cts. per pound.

The transactions during the week have been rather limited in extent, and our quotations are barely supported.

Prime or Saxony Fleeces, washed, lb. 40 a 43 c.—American full blood, do 37 a 38—Do. 3-4 do 35 a 36—Do. 1-2 do 32 a 33—1-4 and common do 30 a 31—Smyrna Sheep, washed, 20 a 22—Do. unwashed, 10 a 15—Bengasi do 6 a 12—Saxony, clean, 00—Buenos Ayres unpicked, 7 a 10—do. do. picked, 10 a 14—Superfine Northern pulled lamb 36 a 38—No. 1 do. do. do. 34 a 35—No. 2 do do do 23 a 25—No. 3 do do do 14 a 17.

HOPS. Duty 20 per cent.

1st sort Mass. 1844, lb. 13 a 00; 2d do 0 a 0.

HAY, 12 to 12½ per ton—Eastern Screwed $12 to 00.

EGGS. 12 to 14.

GRAIN CRADLES.

The Grain Cradle is an article which is coming into very general use in the New England States where they were till of late but little known, although they have been in very general use in the southern and western States, for many years, and which is found to be decidedly the best mode of harvesting grain, as it is supposed one man will cradle five acres in a day when he cannot reap more than one. The difference in gathering a crop is so much in favor of cradling, that we must suppose that it will be the only mode adopted hereafter, and the grain cradle will become of as much use as an implement of husbandry, as the plow now is.

There has been a very great improvement in the manufacturing of this article, they are now made on the most improved plan; the scythe is well secured and finished in a superior manner and made of the best cast steel.

For sale at the New England Agricultural Warehouse and Seed Store. JOSEPH BRECK & CO.

May 7.

DURHAM BULL FOR SALE.

A full blood Durham Bull, from the stock of G. Vail, Esquire, of Troy. A very fine animal, and now one year ten months old.

Also, a Bull Calf of the same stock, five months old,—may be seen at the Farm of John Clarke, sen, on the Worcester Turnpike, in Brookline April 15.

CULTIVATORS,

Of the most approved kinds, for sale at the N. E. Agricultural Warehouse and Seed Store, 51 and 52 North Market street, by J. BRECK & CO.

Guano! Guano!

Just received and for sale in lots to suit purchasers, 20 tons African and South American Guano, of superior quality, the best ever brought into this market. The African, which is part of the cargo of the brig Samos was analyzed by one of the first chemists of this country, and pronounced to be of the first quality; it has been fairly tested by many of the farmers and gardeners in the vicinity of Boston, and has fully equalled their highest expectations. We can fully recommend the South American, which has also been carefully analyzed, and found to be a splendid article, and very superior, being free from stones and hard substances. For sale by the ton, bbl. or bag. Orders addressed to JOSEPH BRECK & CO., 51 and 52 North Market street, will be promptly attended to.

Boston, March 25, 1845.

NEW AND IMPROVED POUDRETTE.

Made by the Lodi Manufacturing Company, may be had at the office of the Company, No. 43 Liberty street, New York, or at their factory on the Hackensack river, in New Jersey, or by letter, post paid, addressed "To the President of the Lodi Manufacturing Company, New York," or from the several agents of the Company in the country who advertise it for sale, or an order sent by any captain of a vessel can obtain it.

Terms cash on delivery—For one barrel, $2; two barrels, $3 50; three barrels, $5; four barrels and up to six, at $1 67 each; seven barrels at $1 50 is $10 50; and at the rate of $1 50 per barrel for any greater quantity, free of cartage and other expenses.

The subscribers are appointed agents for selling Poudrette and all orders directed to them will be faithfully attended to.

Boston, March 26 JOSEPH BRECK & CO.

NOTICE.

The full blood imported Ayrshire Bull WALLACE, (with pedigree complete,) will be at my farm in Chelsea, for a short time, for the use of a few Cows.

BEN. SHURTLEFF, Jr.

May 28, 1845.

IMPORTED LONG WOOL SHEEP FOR SALE.

One Leicester Buck and five Ewes, four have Lambs by their side, and one with Lamb. The above are pure blood and will make Sheep weigh 50 lbs. per quarter and upwards when fat. Will be sold low, as the owner is so situated that he cannot keep sheep.

Inquire at the New England Farmer Office.

April 30.

GEDDES'S HARROW.

This excellent implement, considered a great improvement on all other kinds, is for sale at the N. England Agricultural Warehouse, 51 and 52 North Market street, by

May 21. J. BRECK & CO.

PEACOCKS.

For sale, a pair of young Peacocks. Inquire at this office.

May 21.

HOES,

Of different patterns, for sale at the New England Agricultural Warehouse, 51 and 51 North Market street, by

May 21. JOSEPH BRECK & CO.

SPLENDID DAHLIAS. JOSEPH BRECK & CO. offer to the public, a splendid collection of Dahlias, including all the old varieties worthy of cultivation, and fifty superb newly imported extra fine sorts.

Catalogues are ready for distribution, and the lovers of this showy flower are invited to call and receive one.

Catalogues will be sent to any part of the country when desired. Orders by mail, post paid, will receive prompt attention.

Also, catalogues of implements; Flower and Vegetable Seeds, Herbaceus Plants; Chrysanthemums; Phloxes; Carnations, &c.

Gentlemen wishing for any thing in the Horticultural or Agricultural line will do well to call at the old establishment, Nos. 51 and 52 Market street, (up stairs) where they will find as extensive an assortment as can be found in the United States. JOSEPH BRECK & CO.

April 30.

SCYTHES, SNAITHS AND RIFLES,

Of the best descriptions, constantly on hand, at the New-England Agricultural Warehouse 51 and 52 North Market steet, by JOSEPH BRECK & CO.

SAYLE'S GARDEN ENGINE.

A splendid article, will throw a constant stream of water to the distance of 50 or 60 feet, with great force, and in case of fire would be a good substitute for a fire engine. The most perfect article for the purpose ever introduced. For sale by JOSEPH BRECK & CO.

May 14. 51 and 52 N. Market street.

MISCELLANEOUS.

A Hit at Beards.—An Armenian priest, who rejoiced in an extremely long beard, preaching one day, remarked in the church a peasant, whose tearful eyes were constantly fixed on him. When the congregation had left the church, the priest, who had not lost sight of the man, approached and said to him—"My friend, I remarked the attention with which you listened to me, and I thought I perceived the trace of sadness in your face; open your heart to me—confide your troubles, and if it is in my power to soothe them, believe me, I shall do so with pleasure. My words, perhaps—" "I do not comprehend exactly what you wish to say, sir," interrupted the man; "that I am sad, is true, but your sermon was not the cause, for, to tell you the truth, I did 'n't listen to it."

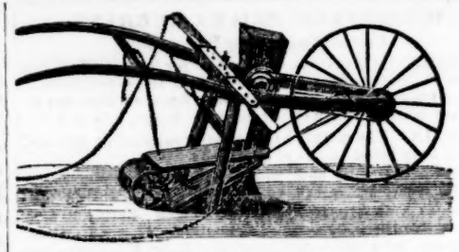
"And what then, could occasion the tears I saw you shed?"

"Oh, sir, that is another matter. Listen: I am a poor man, with a large family: All my fortune consisted in a goat, which my wife, my children, and myself, loved dearly. Well, sir, I have lost her! Ten days have passed, and we have heard nothing of her. Today, when I saw *you*, I could not restrain my tears, for *you resembled so closely my lost animal, that I thought, on seeing you, it was the goat itself.*" One can easily imagine the astonishment in which this answer left the priest.—*N. Y. Mirror.*

Inconvenience of a Bad Character.—A mortal fever prevailed on board a ship at sea, and a negro man was appointed to throw the bodies of those who died from time to time, overboard. One day when the captain was on deck, he saw the negro dragging out of the forecastle a sick man who was struggling violently to extricate himself from the negro's grasp, and remonstrating bitterly against the cruelty of being buried alive. "What are you going to do with that man, you black rascal?" said the captain. "Going to throw him overboard, massa, cause he dead!" "Dead! you scoundrel," said the captain, "don't you see he moves and speaks?" "Yes, massa, I know he say he no dead, but *he always lie so, nobody neber know when to believe him!*"

How to Solve a Difficulty.—The ancients, believing that space could not exist unoccupied by matter, adopted the physical dogma that "*nature abhors a vacuum.*" It is stated in the Library of Useful Knowledge, that this doctrine served the purposes of philosophy for a couple of thousand years, when some engineers in Florence, engaged in sinking pumps, had occasion to construct one to raise water from an unusual depth. Upon working it, they found that the water would not rise higher than about 32 feet above the well. Galileo, the most celebrated philosopher of that day, was consulted in this difficulty, and it is said that his answer was, "Nature's abhorrence of a vacuum extended only to the height of *thirtytwo feet*—and that beyond this, her disinclination to an empty space did not exist."

Some time since, a sailor on one of the wharves was swearing most shockingly, when a Quaker passing by and hearing him, said to him very pleasantly, "Swear away, friend—swear away, till thee gets all that bad stuff out of thee—for thee canst never go to heaven with that stuff in thy heart."



WILLIS' LATEST IMPROVED SEED SOWER.

In using this machine, the farmer may be certain that his seed is put into the ground, and at the same time in the best possible manner. There has been a great difficulty in machines for sowing garden seeds; they are very apt to clog up, and the farmer might go over an acre of land and not sow a single seed; but not so with this; it is so constructed that it cannot possibly clog. In using this sower, the farmer can save one half of his seed, and do the work at less than one quarter the expense of the common way of sowing, and have it done in a much better manner; it opens the furrow, drops the seed, covers it over, and rolls them down. It will sow any kind of Garden Seeds; say Ruta Baga, Mangel Wurtzel, Turnips, Carrots, Beets, Parsnips, Onions, &c. For sale at the New England Agricultural Warehouse and Seed Store, Nos. 51 and 52 North Market street, by JOSEPH BRECK & CO.

JOSEPH BRECK & CO.,

NEW ENGLAND

Agricultural Warehouse

AND

SEED STORE.

51 and 52 North Market Street, Boston.

JOSEPH BRECK & CO. having received a full and general assortment of FIELD, GRASS, GARDEN and FLOWER SEEDS, worthy of cultivation, confidently recommend them as being pure and of the first qualities, unmixed with other varieties; they have no hesitation in saying that their collection of Seeds is the best, and of the greatest variety ever offered for sale at any establishment in the U. States.

AGRICULTURAL BOOKS of all kinds, constantly on hand.

AGRICULTURAL AND GARDEN IMPLEMENTS of all kinds, among which are the following, viz:—1000 Howard's Patent Cast Iron Ploughs, 200 Common do. do, 200 Cultivators, 100 Greene's Straw Cutters, 50 Willis' do. do. 100 Common do. do, 100 Willis' Patent Corn Shellers, 50 Common do. do, 200 Willis' Seed Sowers, 50 do. Vegetable Cutters, 50 Common do. do., 200 Hand Corn Mills, 200 Grain Cradles, 100 Ox Yokes, 1500 Doz Scythe Stones, 3000 do Austin's Rifles, 100 doz. Cast Steel Shovels, 150 do. Common do. 100 do. Spades, 500 do. Grass Scythes, 300 do. Patent Snaiths, 200 do Common do., 500 do. Hay Rakes, 200 do. Garden do., 200 do. Manure Forks, 300 do. Hay do. 500 Pair Trace Chains, 100 do, Truck do. 100 do Draft do, 500 do. Tie up do. 50 doz. Halter do, 1000 yards Fence do, 25 Grind Stones on Rollers

JOSEPH BRECK & CO.,

N. E. Agricultural Warehouse and Seed Store, 51 and 52 North Market Street, Boston.

New Flower Seeds.

The subscribers have received by the steamer Cambria an additional supply of choice Flower Seeds, containing many new and rare varieties, enumerated in our Catalogue for 1845, which our customers and friends are invited to examine.

They may be had on application at the Seed Store, Nos. 51 & 52 North Market st. JOSEPH BRECK & CO.

GRINDSTONES ON FRICTION ROLLERS.

Grindstones of different sizes, hung on friction rollers and moved with a foot treader, are found to be a great improvement on the old mode of hanging grindstones. Stones hung in this manner are becoming daily more in use, and wherever used, give universal satisfaction. The rollers can be attached to stones hung in the common way. For sale by J. BRECK & Co., No. 51 North Market street.

BEMENT'S AMERICAN POULTERER'S COMPANION.

The American Poulterer's Companion — A Practical Treatise on the Breeding, Rearing, Fattening and General Management of the various species of Domestic Poultry, with Illustrations and Portraits of Fowls taken from life. By C. N. Bement, Albany. Published by Saxton & Miles, New York. For sale by JOSEPH BRECK & CO.—Price $1 25.

HOWARD'S IMPROVED EASY DRAUGHT PLOUGH.

Great improvements have been made the past year in the form and workmanship of these Ploughs; the mould board has been so formed as to *lay the furrow completely over, turning in every particle of grass or stubble, and leaving the ground in the best possible manner.* The length of the mould board has been very much increased, so that the Plough works with the greatest ease, both with respect to the holding and the team. The Committee at the late trial of Ploughs at Worcester, say,

"Should our opinion be asked as to which of the Ploughs we should prefer for use on a farm, we might perhaps say to the inquirer, if your land is mostly light and easy to work, try Prouty & Mears, but if your *land is heavy, hard or rocky,* BEGIN WITH MR. HOWARD'S."

At the above mentioned trial the Howard Plough *did more work, with the same power of team, than any other plough exhibited.* No other turned more than twentyseven and one half inches, to the 112 lbs. draught, while the *Howard Plough turned twentynine and one half inches, to the same power of team!* All acknowledge that Howard's Ploughs are much the strongest and most substantially made.

There has been quite an improvement made on the shoe, or land side of this Plough, which can be renewed without having to furnish a new landside: this shoe likewise secures the mould board and landside together, and strengthens the Plough very much.

The price of the Ploughs is from $6 to $15. A Plough sufficient for breaking up with four cattle, will cost about $10 50, and with cutter $11, with wheel and cutter, $2 50 extra.

The above Ploughs are for sale, wholesale and retail, at the New England Agricultural Warehouse and Seed Store Nos. 51 & 52 North Market Street, by

JOSEPH BRECK & CO.

HOWARD'S PREMIUM SUBSOIL PLOWS.

The sub oil low is unquestionably the most important agricultural implement of modern invention. It is considered by the best informed practical farmers of Great Britain and our own country, as an indispensable article in the most profitable husbandry. Says that eminently skilful and intelligent agriculturist, Mr. Phinney, of Lexington: "such is the estimate in which I hold this important implement, that I should consider it a great piece of improvidence to put in a crop without first subsoiling the ground." The subsoil Plows manufactured by Mr. Howard, are of two sizes—the smaller obtained the highest premium offered by the State Agricultural Society at its late exhibition at Worcester. The committee to award the premium on Subsoil Plows, in their report say:—"The committee were pleased with the neatness and firmness of structure of these Plows—characteristics which have distinguished all the Plows of Mr. Howard that have come within their observation. *Utility* and not *show*, are their peculiar features. * * They were astonished to find with what ease and perfection the hard pan could be stirred, and broken to the depth and width of 8 or 9 inches, for such was the operation of the medium size Plows, with a power not exceeding that ordinarily required for moving a surface Plow at the same depth—and they found the Plow might be guided with less labor and fatigue than the surface Plow. * * They confidently recommend the subsoil Plow to the attention of the farmers of the Commonwealth."

The improvement in the length of the handles of Mr Howard's Plows, suggested by the committee, has been made—and the undersigned are now prepared to furnish these invaluable implements wholesale and retail.

JOSEPH BRECK & CO.

N. E. Agricultural Warehouse and Seed Store, 51 & 52, North Market Street, Boston.

SPRUCE POLES FOR SALE.

500 dozen SPRUCE POLES, suitable for fancy Fence, Dahlia or Bean Poles; 2000 SPRUCE POLES, 10 to 30 feet in length; CEDAR POSTS, &c., for sale by

MOSES FRENCH, Jr.

Boston, April 11. 3m. Maine Wharf.

CHEESE PRESSES.

Self acting and other Cheese Presses, of the most approved kinds, for sale at the Agricultural Warehouse, 52 North Market street, by J. BRECK & Co.

NEW ENGLAND FARMER,

A WEEKLY PAPER.

Terms, $2 per year *in advance*, or $2 50 if not paid within sixty days.

N. B.—Postmasters are permitted by law to frank all subscriptions and remittances for newspapers without expense to subscribers.

TUTTLE AND DENNETT, PRINTERS,
21 SCHOOL STREET.